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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,940	08/21/2003	J. Patrick Thompson	MSFT-1750/302726.01	1753
41505	7590	11/29/2006	EXAMINER	
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)			LY, CHEYNE D	
CIRA CENTRE, 12TH FLOOR			ART UNIT	
2929 ARCH STREET			PAPER NUMBER	
PHILADELPHIA, PA 19104-2891			2168	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/646,940	THOMPSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cheyne D. Ly	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/22/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicants' arguments, filed May 22 and September 05, 2006, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The new Abstract and the amendment to the specification have been entered.

### **CLAIM REJECTIONS - 35 USC § 101**

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. This rejection is maintained with respect to claims 1-26, as recited in the previous office action mailed February 28, 2006.
6. Claims 1-26 are rejected because the claims are directed to the storing of nonfunctional descriptive material being stored in a computer readable medium or system. It is noted that claim 2 recites the limitation of "a base schema..." however, the instant specification does not specifically define said limitation to have "a physical or logical relationship among data elements, designed to support specific data manipulation functions." "When nonfunctional descriptive material is recorded on some computer-readable medium..., it is not statutory" (1300 OG 142, November 22, 2005, Annex IV).

## **RESPONSE TO ARGUMENTS**

7. On page 14, Applicant argues via claim amendment that the “claims have been appropriately amended” to overcome the nonstatutory rejection. Applicant’s argument is not persuasive because the claim amendment does not specifically define said limitation to have “a physical or logical relationship among data elements, designed to support specific data manipulation functions.”

### **CLAIM REJECTIONS - 35 USC § 102**

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-12, 14-25, and 27-34 are rejected under 35 U.S.C. 102(a) as being anticipated by Fialli et al. (September 2002) (Fialli hereafter).

10. The instant rejection has been necessitated by claim amendments.

## **CLAIM INTERPRETATIONS**

11. Specific to the limitation of “a base schema”, Fialli discloses a system that binds components of a source schema (a base schema) to schem-derived Java content classes (page 2, Data binding section). Therefore, the citation below is directed to elements that have been derived from the source schema (base schema).

12. Further, Fialli discloses the well known in the art feature of object oriented feature of inheritance wherein a “taxonomy defines both the inheritance and overriding semantics of customization values. A customization value defined in one scope is inherited for use in a

binding declaration covered by another scope....” (pages 104-105, and Figure 6.1).

Therefore, the disclosure reasonably supports that the derivation of classes from a source schema (base schema) discussed below are interrelated. The Soundarajan et al. reference has been provided to support the well known in the art feature of inheritance and “derived class.”

## **PRIOR ART**

13. In regard to claim 1, Fialli discloses a computer-readable medium with computer-readable instructions for a hardware/software interface system for a computer system, wherein said hardware/software interface system comprises a base schema (page 14, Figure 2.1, especially, “Source Schema”) and manipulates a plurality of discrete units of information having properties understandable by said hardware/software interface system, Items (page 8, Section 1.5, especially, manipulate XML content via generated Java interfaces), the base schema defining Item (pages 20-21, and page 170, Table 5-1, especially, “item type definition”), Property Base (page 15, lines 4-7, especially, “Properties are also used for references from one content instance another”), and Extension types (page 14, section 2.1.1, especially, “XML’s Schema’s ‘derived by extension’ type), wherein the Item type is defined by properties of a foundational Item type, the Property Base type being an anchor from which other property types are derived and through which derived property types are interrelated (page 2, Data bind section, especially, “a tree of interrelated instances of both existing and schema-derived classes), and the Extension type defines which Item an extension extends and identification to distinguish one extension from another (page 40-48 and 63-64, especially, “base interface: A complex type definition can derive by restriction or extension...Complex Type: Derivation by Extension”).

14. In regard to claim 2, Fialli discloses the base schema further defines at least one of an Item (page 170, Table 5-1, especially, “item type definition”) and at least one of a property (page 15, lines 4-7, especially, “Properties are also used for references from one content instance another”, and pages 20-21).

15. In regard to claims 3, 6 and 7, Fialli discloses one of an Item in the base schema is a foundational Item (page 53, Figure 5.1, especially, the derivation from “anySimpleType”), from which all other Items manipulated in the hardware/software interface system are derived (page 23, especially, “binding framework resides in...javax.xml.bind package defines abstract classes and interfaces that are used directly with content classes”, and page 14, Figure 2.1).

16. In regard to claim 4, Fialli discloses said foundational Item type (page 53, Figure 5.1, especially, the derivation from “anySimpleType”) comprises a property for referencing at least zero Categories (page 41, section 4.5.1, especially, “*null* is returned”, and page 172, Table 5-7, especially, “identity-constraint category”) to which said Item is a member.

17. In regard to claim 5, Fialli discloses the foundational Item type comprises a property for a unique identification of said Item in a hardware/software interface system (page 172, Table 5-7, especially, “One of key, keyref or unique”, page 173, “referenced key”).

18. In regard to claims 8 and 10-12, the base schema further comprises a second Item derived from the foundational Item type (the first Item), said second item constituting the foundational type for an Item Folder, and said second Item expressing a Relationship to said first item (page 53, Figure 5.1). It is noted the disclosure of “class” as a datatype (relationship to the first Item) cited above has been interpreted as the required “second Item.”



Further, the instant specification (page 37, [0108]) discloses “groups of Items can are organized into special Items called Items Folders (which are not to be confused with file folders)...” Therefore, the disclosure of “class” which is well in the art to have inheritance properties and collection operators including membership, casting, equality, subset, etc. (page 53, Figure 5.1) anticipates the required limitation “Item Folder.”

19. In regard to claim 9, the base schema further comprises a second property derived from the foundational property type (the first property), said second property constituting the foundational type for an id unit key property (page 53, Figure 5.1, and page 172, Table 5-7, especially, “One of key, keyref or unique”, page 173, “referenced key”).

20. In regard to claims 14-25 and 27-34, Fialli discloses the method and hardware/software system as cited above.

### **Claim Rejections - 35 USC § 103**

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the

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time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

23. Claims 13, 26, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fialli et al. (September 2002) (Fialli hereafter) as applied to claims 1-12, 14-25, and 27-34 above, and further in view of Ip et al. (1991) (Ip hereafter).

24. The instant rejection has been necessitated by claim amendments.

#### **MOTIVATION TO COMBINE**

25. Fialli describes it “would be much easier to write XML-enabled programs if we could simply map the components of an XML document to in-memory objects that represent, in an obvious and useful way, the document’s intended meaning according to its schema (page 2, 2<sup>nd</sup> paragraph). Ip describes OO modeling as a knowledge representation that clearly define object relationships (Abstract etc., and page 8, section 2, columns 1-2). An artisan of ordinary skill in the art at the time of the instant invention would have been motivated by the by Fialli to used the OO modeling of Ip clearly define object relationships.

#### **PRIOR ART**

26. Fialli describes the limitations to claims 13, 26, and 35 as discussed above. However, Fialli does not describe the limitations of “a property (IsOwned) for denoting whether said relationship owns said target item.” Ip describes third property constituting the foundational type for a relationship comprise a property (Target) for identifying a target Item of said Relationship and a property (IsOwned) for denoting whether said Relationship owns said target Item (Page 10, Figure 1). Therefore, it would have been obvious to one having



ordinary skill in the art at the time of the invention was made to use the computer-readable medium, system, and method of Fialli with the object modeling described by Ip.

### CONCLUSION

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

28. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to

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confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

30. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The USPTO's official fax number is 571-272-8300.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo, can be reached on (571) 272-3642.

C. Dune Ly / *CR*  
Patent Examiner  
11/26/06



TIM VO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100